

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number  
**WO 2005/012395 A1**

- (51) International Patent Classification<sup>7</sup>: C08J 3/12, C08K 5/00
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- (21) International Application Number: PCT/KR2004/001369
- (22) International Filing Date: 9 June 2004 (09.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
10-2003-0054189 5 August 2003 (05.08.2003) KR
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: GRAFT COPOLYMER LATEX AND METHOD FOR PREPARING DRIED POWDER THEREOF

(57) Abstract: The present invention is related to a method of manufacture of a graft copolymer latex and its dried powder including a step of manufacture of a latex using a reactive surfactant for a surfactant in manufacturing of the graft copolymer latex containing acrylic polymers and a step of manufacture of dried powder in which the graft copolymer latex manufactured in the above step of manufacture of a latex is sprayed and dried. The method according to the present invention is effective in that it is possible to provide for dried powder of a graft copolymer latex having a low moisture content and a high powder density and to provide for a thermoplastic resin composition containing the above latex having superior luster, tensile strength, and thermal stability.

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## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PP03-0109	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/KR2004/001369</b>	International filing date ( <i>day/month/year</i> ) <b>09 JUNE 2004 (09.06.2004)</b>	(Earliest) Priority Date ( <i>day/month/year</i> ) <b>05 AUGUST 2003 (05.08.2003)</b>
Applicant  <b>LG CHEM. LTD. et al</b>		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (See Box No. III)

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

b. ☐ none of the figure is to be published with the abstract.

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 C08J 3/12, C08K 5/00**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC07 C08J, C08K, C08F, C08L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean patents and applications for inventions

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 11-140140 A (Sekisui Chem. Co., Ltd.) 25 May 1999 See the whole document	1-21
A	EP 913408 A2 (General Electric Company) 06 May 1999 See the whole document	1-21
A	US 5399621 A (Wacker-Chemie GmbH) 21 March 1995 See the whole document	1-21
A	EP 1201692 A1 (Rohm and Haas Company) 02 May 2002 Cited in the application, see the whole document	1-21
A	US 4419496 A (The Dow Chemical Company) 06 December 1983 See the whole document  -----	1-21

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

20 SEPTEMBER 2004 (20.09.2004)

Date of mailing of the international search report

**22 SEPTEMBER 2004 (22.09.2004)**

Name and mailing address of the ISA/KR

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Republic of Korea

Facsimile No. 82-42-472-7140

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2004/001369

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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